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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,015	12/21/2001	Joshua J. Malone	TI-29277	2355
23494 7590 11/01/2007 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER GEBREMARIAM, SAMUEL A	
			ART UNIT 2811	PAPER NUMBER
			NOTIFICATION DATE 11/01/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No. 10/028,015	Applicant(s) MALONE ET AL	
	Examiner Samuel A. Gebremariam	Art Unit 2811	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 7/27/07.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 20-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/27/07 has been entered. An action on the RCE follows.

2. The amendment filed on 7/27/07 has been entered.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 6 recites the limitation "said corresponding portion" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-9, 20-24 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Guzuk et al. US patent No. 5,153,379.

Regarding claim 1, Guzik teaches (fig. 1) a substrate for a device package comprising: a first portion (124) of a package having a first surface (upper surface of 124) the first surface having a plurality of corner regions (the four corners of 124); an intermediate metallization layer ((114) is ground pad pattern) on the first surface of the first portion (upper surface of 124), the intermediate metallization layer extending into a first corner region (any one of the corners of 124); a second portion (104) of the package on the first surface of the first portion (124), the intermediate metallization (portion 114 that is covering 124) in the first corner region extending beyond the second portion (104) to uniquely identify the first corner region.

Regarding claim 3, Guzik teaches the entire claimed structure of claim 1 above including the first portion comprising a layered ceramic (col. 2, lines 39-49) portion containing electrical interconnections (130 and 132).

Regarding claim 4, Guzik teaches the entire claimed structure of claim 1 above including a plating (114) on the extending of the first portion.

Regarding claim 5, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) electrically connected to portions of the intermediate metallization layer (114).

Regarding claim 6, as the best the examiner is able to ascertain the claimed invention, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) electrically connected (112 is connected to 114 via 122) to portions of the metallization layer (114), the first corner region (114, the region on one

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the corners) electrically isolated from the portions of the metallization layer electrically connected to the device (114 is not directly contacting 130 and 132).

Regarding claim 7, Guzik teaches the entire claimed structure of claim 1 above including an electrical device (112) and a lid (102) enclosing the device between the lid and the substrate (128).

Regarding claims 8 and 9, Guzik teaches the entire claimed structure of claim 1 above including the second portion (104) having a void over the first corner region allowing visibility to the metallization layer (114, col. 3, lines 38-41).

The limitation of the void is used to mechanically position the substrate is not given patentable weight because, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore the void structure of Guzik is also capable of being used to mechanically position the substrate.

Regarding claim 20, Guzik teaches (fig. 1) a substrate (128) for a device package comprising: a first portion (124) of a package having a first surface (upper surface of 124), the first surface having a plurality of corner regions (the four corners of 124); an intermediate metallization layer (114) on the first surface of the first portion (124) extending into a first corner region (any one of the corners); a second portion

(104) of the package supported by the first surface of the first portion (124), the second portion not covering the first corner region such that the first corner region is uniquely identified.

Regarding claim 21, Guzik teaches the entire claimed structure of claim 20 above including the first portion comprising a ceramic (col. 2, lines 39-49) portion containing electrical interconnections (130 and 132).

Regarding claim 22, Guzik teaches the entire claimed structure of claim 20 above including the first portion (124) comprising electrical connections on a second surface (134, bottom surface of 124) opposite said first surface (col. 3, lines 61-65).

Regarding claim 23, Guzik teaches the entire claimed structure of claim 20 above including an electrical device (112) electrically connected to circuit portions of the intermediate metallization layer (114, fig. 1), the corresponding portion of the intermediate metallization layer electrically isolated from the circuit portions of the intermediate metallization layer. (114 is not directly contacting 130 and 132).

Regarding claim 24, Guzik teaches the entire claimed structure of claim 20 above including the second portion (104) having a void over the corresponding portion of the metallization layer (114, fig. 1).

Regarding claim 26, Guzik teaches the entire claimed structure of claim 20 above including the first portion comprising a ceramic portion (col. 2, lines 39-49).

Regarding claim 27, Guzik teaches the entire claimed structure of claim 20 above including the first portion comprising a polyamide/epoxy portion (col. 2, lines 39-49).

Regarding claim 28, Guzuk teaches the entire claimed structure of claim 20 above including the first portion comprising a plastic/epoxy portion (col. 2, lines 39-49).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-2, 20 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al. US patent No. 6,037,698.

Regarding claim 1, Ueda teaches (fig.15) a substrate for a device package comprising: a first portion (5) of a package having a first surface (upper surface of 5) the first surface having a plurality of corner regions (the four corners of 5); an intermediate metallization layer (portion 16 that is covering 5) on the first surface of the first portion (upper surface of 5), the intermediate metallization layer extending into a first corner region (53); a second portion (6) of the package on the first surface (upper surface of 5) of the first portion (5), the intermediate metallization (16) in the first corner region (22a) extending beyond the second portion (6) to uniquely identify the first corner region.

Regarding claim 2, Ueda teaches the entire claimed structure of claim 1 above including the first (5) and second (6) portions comprising a ceramic (col. 7, lines 17-19).

Regarding claim 20, Ueda teaches (fig. 15) a substrate for a device package comprising: a first portion (5) of a package having a first surface (upper surface of 5), the first surface having a plurality of corner regions (the four corners of 5); an intermediate metallization layer (16) on the first surface (upper surface of 5) of the first portion (5) extending into a first corner region (22a); a second portion (6) of the package supported by the first surface of the first portion (5), the second portion not covering the first corner region such that the first corner region is uniquely identified (fig. 15).

Regarding claim 25, Ueda teaches the entire claimed structure of claim 1 above including the first surface of the first portion (5) having four said corner regions (22a-22d) corners, wherein only one (22a) of the corner regions corners extends beyond the second portion (6, fig. 15).

### ***Response to Arguments***

9. Applicant's arguments filed 7/27/07 have been fully considered but they are not persuasive. Applicant states that claim 2 has been amended to recite "second portion of said package supported by said first surface of said first portion, said second portion not covering said first said corner region such that said first corner region is uniquely identified". However claim 2 as amended only recites "the first (5) and second (6) portions comprising a ceramic". Furthermore amended claims 1 and 20 recite the limitation that the intermediate metallization layer in the first corner region extending beyond the second portion to uniquely identify the first corner region. However the claim does not preclude the four from being the same. Therefore as stated above in the rejection of claims 1 and 20, Guzik teaches the amended claimed features.



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**Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel A. Gebremariam whose telephone number is (571)-272-1653. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Gurley can be reached on (571) 272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAG

October 28, 2007

SAMUEL ADMASSU GEBREMARIAM

A handwritten signature in black ink, appearing to read "Samuel / Admassu", written over the printed name.